

Application Serial No. 10/679,975  
Response to Office Action of 8 February 2005

## REMARKS

### Claim status and preliminary comments

Claims 1-31 were pending in the case at the time of the Office Action. Each of the claims stands rejection as obvious at least two of the following references:

US Pat. 6,571,155 to Carriker ("Carriker '155")  
US Pat. 6,154,151 to McElreath ("McElreath '151")  
US Pat. 4,914,733 to Gralnick ("Gralnick '733")  
US appln 2003/0132860 to Feyereisen ("Feyereisen '860")  
US appln 2004/0113816 to Maris ("Maris '816").

Of these references, the applicants note for the record that the two cited published applications are presently unexamined as to patentability. Accordingly, they are not presently entitled to the presumption of enablement that they would (and may at some point) possess as issued patents.

### Claim amendments

In the foregoing claim amendments, claims 1, 9, 20, 21, 28, 29 and 31 are amended and claims 8, 14, 22 and 26 are cancelled. No new claims are introduced.

The amendments to claims 9, 21, 28, 29 and 31 are non-narrowing, as they correct typographical errors in the claims.

### Information Disclosure Statement

The applicant's record shows that an Information Disclosure Statement was filed on 24 May 2004. Applicants thank the Examiner for acknowledging review of the cited references.

Please note that the IDS filed on 6 May 2004 in the IFW was not filed by the applicants and cites art in an entirely separate field of art. Further, the inventor named in the 6 May 2004 IDS is not a named inventor in this case and the practitioner who filed the IDS does not have a power of attorney in this case. The undersigned attorney asserts that the 6 May 2004 IDS is incorrectly filed in this case and should be ignored. Respectfully, the undersigned attorney is

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somewhat troubled that the Examiner did not notice these problems or the irrelevance of the references in indicating that the references had been reviewed.

Applicants respectfully note that the Gralnick '733 reference cited above was listed in the IDS filed by the applicants.

Claim rejections under 35 U.S.C. 103

The Examiner has rejected claims 1-3, 5-7, 9, 10, 16, 17, 20 and 21 under 35 U.S.C. §103(a) as obvious over US Pat. 6,571,155 to Carriker ("Carriker '155") in combination with US published application 2004-0113816 to Maris ("Maris '816"). Applicants traverse this rejection.

Of the rejected claims, claims 1 and 20 are independent and will be addressed first.

**Claim 1**

With regard to claim 1 as amended, Carriker '155 does not teach an arcuate VSI scale, although, contrary to the Examiner's determination, Carriker '155 does show non-linear graduations on the scale on VSI 208 in Figs 3 and 4. Please note the non-linearity, since the distance between "1" and "2" in each direction appears to be the same as the distance between "2" and "6." Maris '816 also does not show an arcuate scale for the VSI. For at least these reasons, claim 1 as amended is not obvious over the cited references and is, therefore, allowable. As an allowable independent claim, this should also render dependent claims 2-19 allowable.

**Claim 20**

With regard to claim 20, neither Carriker '105 nor Maris '816 teach an elliptically-shaped VSI scale, and the amendment made to claim 20 is non-narrowing, since the requirement that the VSI scale is elliptically-shaped is already contained in the claim. As with claim 2, the Examiner relies upon Carriker '155, col. 8, lines 1-16, as teaching an elliptical VSI scale, but a review of Carriker '155 shows no teaching of the sort. At best, Carriker '155 says that the VSI is "of the moving scale or moving tape type," and the figures accompanying this text show only a tape type display. Also, as with claim 1, the Examiner fails to see the non-linearity of the graduations on the VSI scale of

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Carriker '155. For at least these reasons, claim 20 as amended is not obvious over the cited references and is, therefore, allowable. As an allowable independent claim, this should also render dependent claims 21-31 allowable.

#### Claim 2

With regard to claim 2, and beyond the fact that claim 2 is allowable as a proper dependent claim of allowable claim 1, applicants traverse the Examiner's holding that Carriker '155 shows an elliptically-shaped VSI scale. Please refer to the argument above about claim 20 and specifically about Carriker '155, col. 8, lines 1-16.

#### Claim 3

With regard to claim 3, and beyond the fact that claim 3 is allowable as a proper dependent claim of allowable claim 1, applicants traverse the Examiner's holding that Carriker '155 shows a VSI marker that shows a vertical speed trend. To the applicants, the term "vertical speed trend" would mean the change of vertical speed with respect to time. While the Examiner points to Carriker '155, col. 7, lines 35-67, applicant asserts that Carriker '155 teaches only the indication of an instantaneous vertical speed and lacks the ability to show a change of vertical speed with respect to time.

#### Claims 5-7

With regard to claims 5-7, and beyond the fact that these claims are allowable as a proper dependent claims of allowable claim 1, applicants admit that Carriker '155 shows a vertical speed indicator marker comprising a pointer (claim 5), but denies Carriker '155 shows a vertical speed indicator marker comprising a numeric display, as required by either claim 6 or 7. The Carriker '155 marker may point to the graduated scale, but it does not show a numeric display, for example, when the vertical speed is -15 ft/min.

#### Claim 9

With regard to claim 9, and beyond the fact that claim 9 is allowable as a proper dependent claim of allowable claim 1, applicants admit that Carriker '155 shows a vertical speed indicator scale that always shows an indicium for a value

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of 0 (zero) vertical speed. This is a standard feature, without which the display would be of little use to a member of a flight crew.

#### Claim 10

With regard to claim 10, and beyond the fact that claim 10 is allowable as a proper dependent claim of allowable claim 1, applicants traverse the Examiner's holding that Carriker '155 shows a vertical speed indicator marker comprising a digital readout of the vertical speed of the aircraft. VSI 208 in Carriker '155 shows no digital readout of the vertical speed, contrary to the Examiner's citation of col. 6, line 55 to col. 7, line 12.

#### Claims 16, 17

With regard to claims 16 and 17, and beyond the fact that these claims are allowable as a proper dependent claims of allowable claim 1, applicants traverse the Examiner's determination that Carriker '155 shows a vertical speed bug having a shaped indicator in a position inside the fractional section of the vertical speed indicator scale, and that the vertical speed bug indicates a selected vertical speed value. What Carriker '155 shows is a air speed bug 222 air speed indicator 202. Since there is no "vertical speed bug" in Carriker '155, it cannot point to a location on the fractional section of said vertical speed indicator scale equivalent to the selected vertical speed value.

#### Claim 21

With regard to claim 20, and beyond the fact that claim 21 is allowable as a proper dependent claim of allowable claim 20, applicants admit that Carriker '155 shows a vertical speed indicator marker that is equidistant between an upper value and a lower value on the fractional section of the vertical speed. This is a standard feature, without which the display would be of little use to a flight crew member.

The Examiner has rejected claims 4, 12, 13, 15, 24, 25 and 27 under 35 U.S.C. §103(a) as obvious over Carriker '155 and Maris '816 as applied to claims 1 and 20, and further in view of US Patent 6,154,151 to McElreath ("McElreath '151"). Applicants traverse this rejection.

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#### Claim 4

With regard to claim 4, and beyond the fact that claim 4 is allowable as a proper dependent claim of allowable claim 1, applicants admit that McElreath '151 may show a movable marker capable of showing a vertical speed trend by its motion, but McElreath '151 still fails to show an arcuate VSI, so the full requirements of claim 4 are not met by the cited art combination, and claim 4 is allowable.

#### Claims 12, 24

With regard to claim 12 and 24, and beyond the fact that claims 12 and 24 are allowable as proper dependent claims of allowable claims 1 and 20, respectively, applicants admit that McElreath '151 may show TCAS advisory indicators along a periphery of the VSI scale during a TCAS advisory condition, but McElreath '151 still fails to show an arcuate VSI, so the full requirements of claims 12 and 24 are not met by the cited art combination, and the claims are allowable.

#### Claims 13, 25

With regard to claim 13 and 25, and beyond the fact that claims 13 and 25 are allowable as proper dependent claims of allowable claims 12 and 24, respectively, applicants traverse the Examiner's determination that McElreath '151 shows an enlarged size in the electronic display during a TCAS advisory condition. The Examiner is invited to specifically quote the language relied upon within the cited area of col. 8, line 56, through col. 9, line 11. In any case, McElreath '151 still fails to show an arcuate VSI, so the full requirements of claims 13 and 25 are not met by the cited art combination, and the claims are allowable.

#### Claims 15, 27

With regard to claim 15 and 27, and beyond the fact that claims 15 and 27 are allowable as proper dependent claims of allowable claims 12 and 24, respectively, applicants agree with the Examiner's determination that McElreath '151 shows TCAS advisory marks in the colors of red and green. These are the

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conventional colors and, without their use, the display would be of little use to the pilot.

The Examiner has rejected claims 8, 11, 22, 23 and 28-31 under 35 U.S.C. §103(a) as obvious over Carriker '155" and Maris '816 as applied to claims 1 and 20, and further in view of US Patent 4,914,733 to Gralnick ("Gralnick '733"). Applicants traverse this rejection.

Claims 8, 22

The rejections of claims 8 and 22 are mooted by their cancellation.

Claims 11, 23, 30

With regard to claims 11, 23 and 30, and beyond the fact that claims 11, 23 and 30 are allowable as proper dependent claims of allowable claims 10, 20 and 28, respectively, applicants traverse the Examiner's determination that Gralnick '733 shows a digital readout of the instantaneous vertical speed bounded in the range from -9999 to +9999 ft/min. None of the references cited by the Examiner even show a digital readout of the instantaneous vertical speed, regardless of the range.

Claims 28, 29, 31

With regard to claims 28, 29 and 31, and beyond the fact that claims 28, 29 and 31 are allowable as proper dependent claims of allowable claim 20, applicants traverse the Examiner's determination that Gralnick '733 shows that the vertical speed indicator marker is shown parked at the edge of the fractional section of the VSI scale when the vertical speed source indicates an aircraft vertical speed exceeding an absolute value of 6000 ft/min, as required by claim 28. In the applicants' reading, nothing in the cited section of Gralnick '733 describes what happens when the instantaneous vertical speed goes off scale. If the Examiner believes this is stated in Gralnick '733, the Examiner is invited to quote the passage. If the information is not stated in Gralnick '733, then claim 28 is allowable and claims 29 and 31 are also allowable as proper dependent claims.

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The Examiner has rejected claims 14 and 16 under 35 U.S.C. §103(a) as obvious over Carriker '155, Maris '816 and McElreath '151 as applied to claims 12 and 24, and further in view of Gralnick '733". These rejections are mooted by cancellation of these claims.

The Examiner has rejected claims 18 and 19 under 35 U.S.C. §103(a) as obvious over Carriker '155 and ,Maris '816 as applied to claim 16 and further in view of published US application 2003-0132860 to Feyereisen ("Feyereisen '860"). The Examiner's citations to Feyereisen '860 have been reviewed, and the applicants believe that Feyereisen '860 does not even teach an arcuate VSI scale, much less one possessing a vertical speed bug. As claim 16 is believed to be allowable over the cited references, claims 18 and 19 are also allowable as proper dependent claims.

#### Conclusion

After amendment, claims 1-7, 9-13, 15-21, 23-25 and 27-31 are pending in the present application. The applicants thank the Examiner for the careful claim-by-claim analysis provided in the claim rejections, as the detail provided allowed the applicants to understand the nature of the Examiner's arguments.

The applicants respectfully submit that the claims are now in condition for allowance and such action is earnestly requested.

Respectfully submitted,

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